

REMARKS

In the Office Action of September 9, 2004, the Examiner rejected claims 1, 2, 7, and 8 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication 2001/0012288 to Yu (“Yu”). Claims 3 and 5 were objected to by the Examiner as being dependent on a base claim, but were indicated as being allowable if rewritten in independent form. Claims 9-24 were allowed.

Initially, Applicants note that although the header portion of paragraph 3 of the Office Action indicates that claims 1-3 and 5-8 are rejected under 35 U.S.C. § 102(e), this appears to be a typographical error. In particular, the cover page (PTOL-326) of the Office Action indicates that claims 3-6 are objected to, the Examiner only specifically addressed claims 1, 2, 7, and 8 in the body of the rejection under 35 U.S.C. § 102(e), and claims 3 and 5 are specifically discussed in paragraph 4 as being directed to allowable subject matter. Accordingly, Applicants will assume that the Examiner only intended to reject claims 1, 2, 7, and 8 under 35 U.S.C. § 102(e). If this is not the case, Applicants request clarification from the Examiner.

By this Amendment, Applicants have amended Fig. 5 to conform label “402” to label “404.” The specification correctly references label 404.

Claims 1-24 are currently pending.

Applicants respectfully traverse the Examiner’s rejection of claims 1, 2, 7, and 8 under 35 U.S.C. § 102(e) in view of Yu.

Claim 1 is directed to a device for inserting escape characters into a multi-byte wide data stream. The device includes a gap insertion component configured to receive blocks of data of the multi-byte wide data stream, where the gap insertion component

rearranges the bytes of a block of the data stream by inserting gaps into the block at locations adjacent to predetermined bytes. The device further includes an escape character inserter configured to insert escape characters in each of the gaps inserted by the gap insertion component.

Applicants remind that the Examiner that a proper rejection under 35 U.S.C. § 102 requires that a reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. Applicants submit that Yu does not disclose or suggest the combination of features recited in claim 1.

In rejecting claim 1, the Examiner contends that Yu discloses the gap inserter recited in claim 1 and points to a number of sections in Yu, including: Figs. 4 and 10; and paragraphs 78, 98-104, 159-167, 173, and 178. (Office Action, numbered paragraph 4). The Examiner further contends that Yu discloses, at paragraphs 166, 173, 174, and 178, the escape character inserter recited in claim 1. (Office Action, numbered paragraph 4). Applicants have examined Yu, paying particular attention to these sections specifically pointed to by the Examiner, and submit that the Examiner's interpretation of Yu is mistaken. More specifically, Applicants submit that Yu does not disclose or suggest the gap insertion component or the escape character inserter recited in claim 1, either in the cited sections of Yu or in any other section of Yu.

Fig. 4 of Yu illustrates the LAPS frame format. (Yu, paragraph 56). Fig. 10 of Yu compares frame formats between RFC 2615 and a first embodiment of the invention of Yu. (Yu, paragraph 47). These figures of Yu do not appear to be even remotely

related to the gap insertion component or the escape character inserter, as recited in claim 1.

Paragraphs 78, 98-104, 159-167, 173, and 178 of Yu appear to generally relate to data frames that may be buffered and transmitted in a “byte wide format.” (Yu, paragraphs 78, 103, and 104). Yu further discloses that “byte stuffing” may be performed that “replaces any byte that matches the flag or the control escape bytes with a two byte sequence consisting of the Control Escape followed by the original byte exclusive-ored with (0x20) HEX.” (Yu, paragraph 166). In paragraph 178, Yu discusses “octet stuffing” as:

The LAPS octet stuffing procedure (also sometimes referred to as escaping transform), is applied on the transmitted LAPS frames after FCS calculation and partial scrambling. Octet stuffing is done by the examination of the entire LAPS frame between the beginning and end Flag Sequences for the control escape octet. When found, 0x7E is encoded as 0x7D, 0x5E. 0x7D is encoded as 0x7D, 0x5D. The abort sequence shall not be considered an escape sequence. The control escape octet value shall be programmable and defaults to 0x7D. The octet stuffing masking octet shall be programmable and defaults to 0x20.

In these sections, Yu generally discloses that octet stuffing includes the process of inserting control escape octets into a frame. Yu, however, does not go into any particular detail as to how octet stuffing is performed or any particular structure used to perform it.

The invention recited in claim 1, in contrast to Yu, recites a particular device for inserting escape characters into a multi-byte wide data stream. The device includes, for example, a gap insertion component and an escape character inserter configured to insert escape characters in each of the gaps inserted by the gap insertion component. Yu does not disclose any such device. Yu, instead, only discloses that control characters can be inserted.

As discussed in Applicants' Background of the Invention section of the pending specification, one conventional escaping circuit includes a number of pipelined stages: a first stage that surrounds each received byte with blank bytes; a second stage that examines the data stream, and when appropriate, inserts escape characters in the blank bytes; and a third stage that compresses the data stream to remove any remaining blank bytes. (Applicants' specification, paragraph 8). Thus, this conventional escaping circuit inserts a blank byte for every byte and then compresses the stream to remove the blank bytes for which no escape character was inserted. In contrast, the device of claim 1 inserts escape characters into each of the gaps inserted by the gap insertion component. No third compression stage is required.

Applicants submit that because Yu fails to disclose any particular structure for inserting escape characters, one of ordinary skill in the art, attempting to implement Yu, is likely to implement an escaping circuit such as that discussed in Applicants' Background of the Invention section, which does not disclose or suggest inserting escape characters in each of the gaps inserted by the gap insertion component. In any event, Yu's mere disclosure of an "octet stuffing" functionality in no way discloses or suggests the specific device recited in claim 1.

For at least these reasons, Applicants submit that the rejection of claim 1 under 35 U.S.C. § 102(e) is improper and should be withdrawn. The rejections of claims 2, 7, and 8 should also be withdrawn, at least by virtue of the dependency of these claims from claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 CFR 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

By: 

Brian E. Ledell  
Reg. No. 42,784

11240 Waples Mill Road  
Suite 300  
Fairfax, Virginia 22030  
(571) 432-0800  
Customer Number: 44987

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**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Fig. 5. This sheet replaces the original sheet. In Fig. 5, label "402" had been changed to label "404" to correct a typographical error and to be consistent with the specification.

Attachment: Replacement Sheet  
Annotated Sheet Showing Changes



402

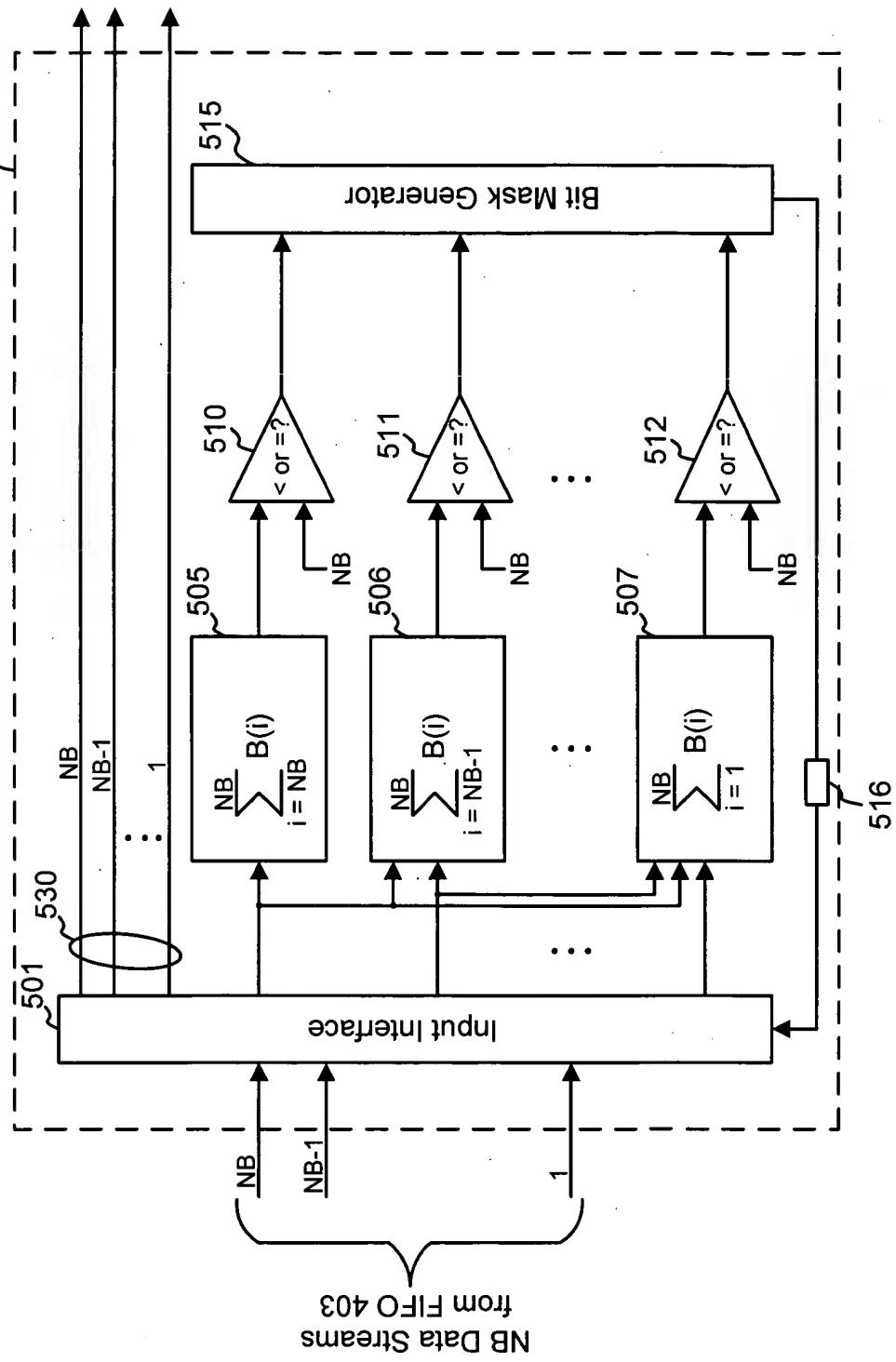


Fig. 5